

In the Claims:

This listing of claims will replace all prior versions and listings of claims in the application:

1. (Previously Presented) A mechanism that can maintain a constant force comprising:
an input groove;
an output groove;
said input groove operably coupled to said output groove;
an input cable secured to said input groove;
an output cable secured to said output groove;
said input cable adapted to be secured to a source of force; and
said output cable adapted to output a constant force.
2. (Original) The mechanism of claim 1 wherein said input groove spirals outwardly in a direction that is opposite to a direction that said output groove spirals outwardly.
3. (Original) The mechanism of claim 1 wherein said input groove and said output groove are positioned back-to-back.
4. (Original) The mechanism of claim 1 wherein said input groove spirals outwardly with an ever increasing radius and the output groove spirals outwardly with an ever increasing radius.
5. (Original) The mechanism of claim 1 wherein said input groove spirals outwardly in a counter-clockwise manner and said output groove spirals outwardly in a clockwise manner.
6. (Original) The mechanism of claim 1 wherein said input groove spirals outwardly in a counter-clockwise manner and said output groove spirals outwardly in a clockwise manner and said input groove is mounted on a back of said output groove.
7. (Original) The mechanism of claim 1 wherein said input groove spirals outwardly and said

output groove spirals outwardly, in a manner such that said output cable produces a constant output force.

8. (Previously Presented) The mechanism of claim 1 in combination with a linear extension spring to provide a source of force.

9. (Original) The mechanism of claim 1 wherein said shape of at least one of the input groove and the output groove is defined by a torque profile.

10. (Original) The mechanism of claim 1 wherein said shape of at least one of the input groove and the output groove is defined by a torque profile which is parabolic.

11. (Original) The mechanism of claim 1 wherein said shape of at least one of the input groove and the output groove is defined by a torque profile that is a composite of a line, a constant, and a curve that is tangent to the line and the constant.

12. (Original) The mechanism of claim 1 wherein said input groove and said output groove are torsionally coupled together.

13. (Canceled)

14. (Original) A mechanism that can maintain a constant force comprising:

an input groove;

an output groove;

said input groove operably coupled to said output groove; and

wherein said input groove spirals outwardly in a counter-clockwise manner and said output groove spirals outwardly in a clockwise manner and said input groove is operably coupled to a back of said output groove.

15. (Original) The mechanism of claim 14 including an adjustable spring end plug operably

connected to a cable mounted in said input groove.

16. (Original) The mechanism of claim 14 including an adjustable spring end plug operably connected to a cable mounted said input groove, which adjustable spring end plug has an adjustable spring constant.

17. (Original) A spring end plug comprising:

a plug;

a thread described on said plug;

said plug adapted to be mounted onto a spring with said thread adapted to be screwed on to the spring; and

a mechanism that is adapted to allow a load to be applied through the plug.

18. (Original) The spring end plug of claim 17 wherein said plug has a flat side adapted to be located away from a spring and said mechanism is located in a center of said flat side.

19. (Original) The spring end plug of claim 17 which can be used to adjust the spring constant of a spring by rotating the end plug relative to a spring.

20. (Original) The spring end plug of claim 17 having a cylindrical wall with said thread mounted on one of an inside of said cylindrical wall and an outside of said cylindrical wall.

21. (Canceled)

22. (Previously Presented) A mechanism that can maintain a constant force comprising:
a pulley including an input groove and an output groove;
an input cable having a first end coupled to the input groove and a second end connected with a spring;
an output cable having a first end coupled to the output groove; and a second end extending from the first end;
wherein the pulley is adapted to transfer a constant force to the second end of the output cable; and
wherein the input groove and the output groove are shaped according to a characteristic of the spring.

23. (Previously Presented) The mechanism of claim 22, further comprising:
an adjustable end plug connected between the input cable and the spring;
wherein the adjustable end plug includes a helical groove within which a coil of the spring is receivable; and
wherein the adjustable end plug can be threaded along the coil of the spring to adjust the characteristic of the spring.